

### **Amendments to the Claims:**

Claims 1-22 are pending in the subject application. Claims 1-2, 5-11, 13-14, 16, 18-19, and 21-22 have been amended herein. All claims currently pending and under consideration in the above-identified application are shown below. This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) An input device for scanning a biometric image, comprising:

a housing;

a scan head movably mounted to the housing wherein the scan head is comprised of at least a light source and a linear array of gradient indexed lenses;

a platen moveably mounted to the housing and the scan head for movement relative to the housing and the scan head between a first position and a second position;

an encoder target having a grid pattern representing a plurality of binary numbers, wherein the boxed pattern and the platen are associated to allow the scan head to capture a plurality of scan lines such that each member of the plurality of scan lines includes at least a portion of the grid pattern representing a binary number and at least a portion of the platen, and wherein the captured plurality of scan line are assembled based on a binary number value associated with the captured portion of the grid pattern;

a biasing device configured to bias the platen toward the first position;

a start of scan switch located such that the start of scan switch is activated when the platen moves in a downward translation from the first position; and  
an end of scan switch located such that the end of scan switch is activated when the platen is at the second position.

2. (Currently Amended) The device of claim 1, wherein the scan head further comprises a linear array of gradient indexed lenses, further comprising an encoder target.

3. (Original) The device of claim 1, wherein the biasing device is an extension spring.

4. (Original) The device of claim 1, wherein the biometric image is a fingerprint.

5. (Currently Amended) The device of claim 1[[2]], wherein the encoder target comprises a non-repeating pattern that represent binary numbers.

6. (Currently Amended) The device of claim 1[[2]], wherein the encoder target is integrated into the platen.

7. (Currently Amended) The device of claim 1[[2]], wherein the scan head is adaptive to capture a scan line as the platen is moved.

8. (Currently Amended) The device of claim 1[[2]], wherein the scan head is configured to continuously scan [[a]] the grid pattern on the encoder target and to capture a scan line of the biometric image when a member of the plurality binary numbers differs from an immediately previous member that is scanned on the encoder target. ~~and the corresponding pattern on the encoder target.~~

9. (Currently Amended) The device of claim 8, wherein the binary number grid pattern on the encoder target is used to combine a series of scan lines to form an image representative of the biometric image.

10. (Currently Amended) The device of claim 9, wherein the binary number pattern on the encoder target represents about 255 binary numbers. ~~biasing device is a coiled spring.~~

11. (Currently Amended) An input device for scanning a biometric image, comprising:

a housing having an angled way;

a platen moveably mounted to the housing for movement between a first position and a second position, the platen being adaptive to receive the biometric image;

a scan head[[,]] comprised of at least a light source ~~and a linear array of gradient indexed lenses,~~ the scan head is moveably mounted to the angled way, wherein movement of the platen causes the scan head to translate along the angled way; and

an encoder target having a grid pattern representing a plurality of binary numbers, wherein the grid pattern and the platen are associated to allow the scan head to capture a plurality of scan lines such that each member of the plurality of scan lines includes at least a portion of the grid pattern representing a binary number and at least a portion of the platen, and wherein the captured plurality of scan line are to be assembled based on the value associated with the captured portion of the grid pattern.

12. (Original) The device of claim 11, further comprising a spring, the spring biasing the scan head assembly against the platen so as to bias the platen toward the first position.

13. (Currently Amended) The device of claim 11, wherein the scan head is configured to scan ~~[[a]] the~~ pattern on the encoder target and to capture a scan line of the biometric image and a portion of the grid pattern associated with the scan line when a member of the plurality of binary numbers has a value different from an immediately previously scanned member of the plurality of binary numbers on the encoder target. ~~and the corresponding pattern on the encoder target.~~

14. (Currently Amended) The device of claim 11, wherein ~~[[a]] the~~ grid pattern on the encoder target is used to combine a series of scan lines to form an image representative of the biometric image.

15. (Original) The device of claim 11, wherein a force applied to the platen is transferred to the scan head so as to direct the scan head to traverse the platen.

16. (Currently Amended) The device of claim 13, wherein the grid pattern is used to combine a series of scan lines to form an image representative of the biometric image, wherein the series of scan lines are combined in a sequential order based on the captured binary number associated with each of the series of scan lines.

17. (Original) The device of claim 12, further comprising a spring, the spring biasing the scan head assembly against the platen so as to bias the platen toward the first position.

18. (Currently Amended) An input device for scanning a biometric image of a fingerprint, comprising:

a housing having an angled way;

a platen moveably mounted to the housing, wherein the platen moves in about a vertical direction;

an encoder target associated with the platen, wherein the encoder target having a grid pattern representing a plurality of binary numbers, and wherein the pattern and the platen are associated to allow a scan head to capture a plurality of scan lines such that each member of the plurality of scan lines includes at least a portion of the pattern representing a binary number and at least a portion of the platen, and wherein the captured plurality of scan line are assembled based on the value associated with the captured portion of the pattern representing a binary number; [[and]]

[[a]] the scan head, comprised of at least a light source and a linear array of gradient indexed lenses, the scan head is moveably mounted to the angled way, wherein movement of the platen causes the scan head to traverse a length of the

platen at a distance vertically constant from the platen as the platen moves in a vertical direction ~~the platen~~, the scan head configured, in operation, to capture a scan line of the fingerprint image and a portion of the pattern on the encoder target while traversing the platen, and wherein the scan head only captures a scan line of the fingerprint and the pattern when a continuous scan of the pattern identifies a binary number that differs from an immediately previously scanned binary number of the pattern; and ~~a pattern on the encoder target while traversing the platen.~~

an assembler to assemble the captured scan lines into an image representative of the fingerprint, wherein the captured scan lines are assembled in a sequence based on the binary number captured with each scan line.

19. (Currently Amended) The device of claim 18, wherein the scan head further comprises a linear array of gradient indexed lenses. ~~encoder target includes a pattern, the pattern being used, in operation, to combine a series of scan lines to form an image representative of the biometric image.~~

20. (Original) The device of claim 18, further comprising a biasing device, the biasing device configured to resist movement of the scan head from a first position to a second position.

21. (Currently Amended) The device of claim 18, wherein the encoder target comprises a repeating pattern representing about 7 binary numbers.

22. (Currently Amended) The device of claim 18, wherein the encoder target comprises a non-repeating pattern representing about 255 binary numbers. ~~the platen provides a substantially flat contact surface for the biometric image.~~

23-30. (Cancelled).